Author's response to reviews

Title: Japanese trends in breastfeeding rate in baby-friendly hospitals between 2007 and 2010: A retrospective hospital-based surveillance study

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Author's response to reviews: see over
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Peter O’Donovan,
Executive Editor, *BMC Pregnancy and Childbirth*

Dear Dr. O’Donovan and reviewers:


This is the third time we have submitted this manuscript.

Thank you for your detailed suggestions. We believe that we have correctly addressed your advice and revised our manuscript accordingly. It has also been proofread and edited by a professional editor.

Please see the list of replies to reviewers below.

The revised manuscript includes 1 figure and 5 tables. The revised parts are underlined.

We look forward to your response at your earliest convenience.

Sincerely,

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To the reviewers,

Thank you for your comments. We believe that we have correctly addressed your advice and revised our manuscript accordingly. It has also been proofread and edited by a professional editor.

We know that in order to respond well to your suggestions, more detailed analyses are required. However, to improve the accuracy of our analysis by making use of individual data, we would need to obtain ethical clearance from each of the BFHs individually. It was simply impossible to obtain this clearance in time. Thus, we have written this manuscript utilizing best available data retrieved as census report of BFHs. Despite the limitations, we feel that the study yields some valuable information, and that it provides a useful first step for future research.

Reviewer 1: Eivind Ystrom
Reviewer's report:
Major Compulsory Revisions:
The authors conclude in the abstract that: "the disbursement of BFH activities to non-BFH delivery facilities would be a useful strategy for achieving a 60% breastfeeding rate at one month of age". Figure 1 shows quite the opposite; breastfeeding rates drops year-by-year after initiating BFH activities. This indicates that the high rate of breastfeeding rate in BFH is due to selection, not due to BFH activities. The abstract result and conclusion, and manuscript should reflect this openly.
The authors conclude in the manuscript that: "...the wider implementation of BFH activities in delivery facilities would be a useful strategy for achieving the national target of a 60% breastfeeding rate at one month of age."
Population-based prevention are costly and have large scale consequences for thousands of individuals. It is not ethical to clearly recommend a wider implementation of a prevention effort based on the data in figure 1. In fact, one would expect the national rate of breastfeeding to drop. The conclusion should be rewritten.

Thank you for your advice.
We have discussed what Figure 1 means and revised three points.

1. In the results section, we added a text “An increase in the percentage of cesarean section deliveries was observed”
2. We explained the reason borrowing your comments in the sixth paragraph of Limitations as follows.
   "Finally, as shown in Figure 1, the breastfeeding rate of mothers after they leave the BHF facilities has dropped year-by-year. This may indicate that the high rate of breastfeeding in the BFH is due to selection, rather than the BFH activities. We should consider the reason for this decline in the breastfeeding rate. We speculate that the drop can be attributed to two reasons: the high rate of cesarean section deliveries at BFHs and provider fatigue after BFH certification. According to our data, the percentage of cesarean deliveries increased in 2007 and 2010. Prior et al. pointed out a negative association between cesarean delivery and breastfeeding in their systematic review article [28]. In addition, studies in Sweden and Austria have shown that cesarean section deliveries are linked to greater risk of breastfeeding complications [29, 30]. Thus, we speculate that the increase of cesarean delivery is the main contributing factor for the decrease in breastfeeding rate. As Yamada et al. pointed out in their survey of one Japanese BFH, adverse effects of cesarean deliveries may contribute to the increased breastfeeding dropout [31]. In Japan, the proportion of
cesarean delivery is gradually increasing [32, 33], which may have a negative effect on the national breastfeeding rate. Thus, we should consider special support for mothers who delivered by cesarean section during hospital stay including close counseling, and follow-up care after discharge, including individual home visits for mental support in order to mitigate the collapse of breastfeeding. As for provider fatigue, we speculate that staff at BFHs may experience carelessness after certification. Although a more detailed interview survey would be needed to confirm the extent to which this exists, a training program for staff after certification could be a useful for reducing staff carelessness."

3. We revised the conclusion as follows:
   "In the current situation, BFH activities in Japan can play an important role in increasing the breastfeeding rate. Even though BFHs account for only 2% of delivery facilities in Japan, the wider implementation of BFH activities in delivery facilities, with special support to mothers who delivered by cesarean section, would be a useful strategy for achieving the national target of a 60% breastfeeding rate at one month of age.”

Level of interest: An article whose findings are important to those with closely related research interests
Quality of written English: Acceptable
Statistical review: No, the manuscript does not need to be seen by a statistician.

Reviewer: Maria Enrica Bettinelli
Reviewer’s report:

Thank you for your advices.
First of all, we would like to point out that this article is a scientific article based on our epidemiological findings. We are not proposing a consensus paper.
Please keep this point in mind.

Major Compulsory Revisions
1. WHO Breastfeeding definitions during hospital stay should be: exclusive (EBF), predominant (PBF) and complementary breastfeeding (CBF) rather than full (not fully) breastfeeding (EBF+PBF). It is useful to collect exclusive BF rate separated from predominant. These data are collected throughout the hospital stay and not within 24 hours before discharge.
You omit the 24 hours recall in the description of the breastfeeding rate at one month.

Thank you for your advice.
We revised our manuscript as follows:
"The number of breastfed children at the age of 1 month was determined by interviews carried out in check-ups of one month olds by staff at the respective BFHs, who asked mothers whether or not they were breastfeeding, in consideration of the 24-hour recall recommendation in the indicator guidelines of the WHO [16]"

We cannot omit the breastfeeding rate at one month for three reasons:

1) We have defined our breastfeeding definition following your advice.
And our data collection method is based on the report "Indicators for assessing breastfeeding practices" distributed by WHO. Our data were collected by professional medical staff at one month old baby-wellness checkups.

2) The objective of our article is to pave the way to increase breastfeeding rate at one month of age from an average of below 50% to 60%. The goal is clearly stated in Japan's national campaign for newborn services called “Healthy and Happy Family 21”. Instead, we have added emphasis to our objective as follows:

"In this article, we summarize the breastfeeding rate for all of Japan’s baby-friendly hospitals (BFHs) and extract their strengths in conjunction with the structural and legislative support that they have in place and finally draw up a policy for dispersing BFH activities to non-BFH delivery facilities, which could be useful for increasing the breastfeeding rate."

3) We have already added a limitation argument following the advice previously given by Reviewer 1 in the 3rd paragraph of Limitations as follows:

"Second, we should consider the reliability of national data as a reference. While BFH data is retrieved yearly as an enumeration survey, the most recent national data was acquired in 2005 as a sampling survey and only its estimation was reported. In addition, the national survey, the questionnaire simply asked whether mothers breastfed, provided formula milk or whether they were mixed feeding. This three-way classification (breast feeding, formula milk feeding and mixed feeding) corresponds to the classifications of the MCH handbook. Furthermore, the national data may include babies that are excluded from the BFH data. The application of this kind of data as a reference is not strictly appropriate. We have adopted this data for comparison due to the absence of more appropriate national data, even from research papers. The data were adopted on the basis of the strategies of the "Healthy and Happy Family 2001" survey. However, our BFH data were gathered by enumeration surveillance. Since BFHs are considered to be motivated to promote breastfeeding, the results could have a reverse confounding effect. Notwithstanding these limitations, we believe that the data that were utilized are suitable for drawing our conclusions. Our BFH data were sufficiently reliable and while the national data does not allow for the desired level of precision, it is suitable for gaining a reasonable understanding of the breastfeeding situation in Japan."

2. pag. 7 second paragraph

I believe the higher breastfeeding rates in the BFHs are linked to implementing good breastfeeding practices (ten steps, together or some of them) rather than length of hospital stay (BFHs and not BFH have the same length hospital stay). The same applies to the conclusion (pag.9).

We partly agree with your opinion. In the 4 the paragraph of Discussion, we have already discussed on good breast-feeding practices. Our discussion goes further. We have developed our discussion based on our important findings with regard to length of stay. This has been discussed with references and we do not believe that there is any counter-evidence in the literature that would contradict our viewpoint on length of stay.

3. You may want to consider avoiding to explain in details the use of glucose water, rather just describe it as common practice according to the JBA protocol. The use of glucose water is not a recommended practice in a BFH (see evidence about step 6 by WHO, UNICEF and AAP materials), as previously highlighted.
We thoroughly examined the recommendations of WHO, UNICEF and AAP and found that the JBA’s recommended application of glucose water does not contravene the recommendations of the WHO, UNICEF and AAP since its application is limited to medical use. Even though this was noted in the previous manuscript, we revised the text to clarify this point. The revised text reads as follows:

“The standard of application of glucose water is stipulated by the JBA Committee of Supplementation [21], and its recommendations do not differ from those of the American Academy of pediatrics [22]. In practice, its application varies among BFHs based on the medical decisions of the doctors/midwives in charge. When doctors or nurses find symptoms (including a more than 10% body weight decrease from birth weight, development of fever without infection, or insufficient breast milk secretion) glucose water supplementation is considered as medical indication and is generally initiated [22].”

In addition, we have discussed the use of glucose water in detail with our findings of the length of stay throughout the Discussion. We do not believe that JBA practice conflicts with the recommendation mentioned by the reviewer.

Minor Essential Revisions
1. Introduction Third paragraph (newly added)
   You may want to consider shortening the description of health care assistance for pregnant women, mothers and babies in Japan. It may be summarized focusing on the points of interests for this topic.
   Thank you for your advice.

   We have significantly shortened the explanation of maternal checkup and mass screening part. Other parts have some relation with checking mode of breastfeeding and the length of stay and could not be shortened.

2. Introduction - Last sentence "We conclude ..." should be omitted. I think you should put this conclusion in the Discussion.

   We were not able to omit this sentence because this is a thesis statement.

3. Methods 5th line “(defined in Table 1)” omit “defined in”, leave only “(Table 1)”

   We have changed this expression following your advice as follows:
   “A structured questionnaire, which was organized by the JBA, was sent to each registered hospital to collect information about healthy newborns who stayed with their mothers during the delivery period (Table 1).”

4. Second paragraph - 6th line You may want to provide further explanation about the concept "The data are collected without unique identifiers”.

   We added the explanation as follows:
   “The data were collected only by registered hospitals/clinics and reported to the JBA in a compiled manner. Personal information was not collected (including the names of mothers or babies, birth dates, addresses, and phone numbers).”

Results
6. In describing the increase of the number of breastfed newborn you may consider using the breastfeeding percentage when comparing data between different years (2007 vs 2010).

Thank you for your advice.
We have added percentages next to the raw numbers.

7. Table 2 You should change "Number of breastfed newborns at admission ..." in "number of breastfed newborns during hospital stay ...".

We have changed the expression following your advice.

8. You should describe the data in tables 3-4-5. There is no correlation about type of delivery, etc and type of breastfeeding/non breastfeeding.

It is impossible to analyze the data you suggested because the data is reported in compiled manner from each BFH. We therefore added another limitation argument at the fifth paragraph of Limitations as follows:

“Fourth, it is impossible to analyze correlations with regard to type of delivery, etc and type of feeding because the data were reported in a compiled manner. In order to analyze these data, it is necessary to collect a dataset from individual mothers. To accomplish this, we would need to obtain ethical clearance from the respective BFHs. This will be a future challenge for our research.”

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being Published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.